

➤ Nuclear power reactor cooling tower and power transmission lines



APPENDIX A:

MANAGEMENT CHALLENGES



November 18, 2002

MEMORANDUM TO: Chairman Meserve

FROM: Hubert T. Bell *Hubert T. Bell*
Inspector General

SUBJECT: INSPECTOR GENERAL'S ASSESSMENT OF THE MOST SERIOUS
MANAGEMENT CHALLENGES FACING NRC (OIG-03-A-02)

SUMMARY

On January 24, 2000, Congress enacted the Reports Consolidation Act of 2000 to provide financial and performance management information in a more meaningful and useful format for Congress, the President, and the public. Included in the act is the requirement that the Inspector General of each Federal agency summarize what he or she considers to be the most serious management and performance challenges facing the agency and assess the agency's progress in addressing those challenges. In accordance with the Reports Consolidation Act of 2000, I am submitting my annual assessment of the major management challenges confronting the U.S. Nuclear Regulatory Commission (NRC).

Congress left the determination and threshold of what constitutes a most serious management challenge to the discretion of the Inspectors General. As a result, I applied the following definition in preparing my statement:

Serious management challenges are mission critical areas or programs that have the potential for a perennial weakness or vulnerability that, without substantial management attention, would seriously impact agency operations or strategic goals.

APPENDIX A: INSPECTOR GENERAL'S ASSESSMENT

The most serious management challenges facing NRC may be, but are not necessarily, areas that are problematic for the agency. The challenges, as identified, represent critical areas or difficult tasks that warrant high-level management attention. This year, I identified nine management challenges I consider to be the most serious.

DISCUSSION

The most serious management challenges that follow are **not** ranked in any order of prominence.

CHALLENGE 1

Protection of nuclear material and facilities used for civilian purposes.

NRC's, and the industry's, highest priority must be the protection of public health and safety. In light of the events of September 11, 2001, the NRC has recognized the need to reexamine past security strategies to ensure that the right protections are in place for the long term. One action that NRC has taken following the terrorist attacks included enhanced access control at nuclear power plants. In the Chairman's opinion, this enhancement may be one of the most effective means of preventing a successful attack, because an insider could provide significant assistance to an attacking force. The agency has also completed an initial assessment of power reactor vulnerabilities to the intentional malevolent use of commercial aircraft in suicidal attacks, as well as initiating a broad-ranging research program to understand the vulnerabilities of various classes of facilities to a wide spectrum of attacks.

NRC's security program contains many facets to protect against the design basis threat. The design basis threat defines the threat against which power plants and selected fuel cycle facilities must be capable of defending. The National Journal gave nuclear power plants a grade of B-. It stated that Congressional critics found problems with the design basis threat, stating that the attacks on plants were too specific and only covered attacks by small groups of potential terrorists. In addition, on September 12, 2002, the Project on Government Oversight issued a report on nuclear power plant security stating that the NRC has done little to effectively improve security at nuclear power plants since September 11, 2001. It asserted that, most significantly, the NRC has not toughened the design basis threat security regulations, which specify the number of outside attackers and inside co-conspirators that nuclear facilities must be prepared to defeat.

NRC has developed a new Threat Advisory and Protective Measures System in response to Homeland Security Presidential Directive-3. When a new Homeland Security Advisory System threat condition is declared, NRC will promptly notify affected licensees of the condition and refer them to the pre-defined protective measures that NRC developed for each threat level. The new system for NRC licensees was formally communicated on August 19, 2002.

In response to the attacks on September 11, 2001, NRC established the Office of Nuclear Security and Incident Response on April 7, 2002. The office was intended to consolidate security, safeguards, and emergency response into one area. The objectives of this new office are to: (1) improve communications and coordination within the agency and with exter-

nal entities, including Federal and State agencies; (2) streamline communications; (3) improve the timeliness and consistency of information; and (4) provide a more visible point of contact and effective counterpart to the Office of Homeland Security, as well as other Federal agencies.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Investigations

- ▶ Review of NRC's Staff Approval of the Carolina Power and Light Request for Expansion of High-Level Radioactive Waste Storage
- ▶ NRC's Regulatory Oversight Over the Control of Special Nuclear Material at Millstone Unit 1

CHALLENGE 2

Development and implementation of an appropriate risk-informed and performance-based regulatory oversight approach.

NRC faces numerous challenges in implementing a risk-informed approach for nuclear power plants as well as for nuclear material licensees. The NRC developed the Reactor Oversight Process to move toward a more-risk informed regulatory philosophy. The processes included developing and implementing a risk-informed inspection program to provide increased focus on aspects of plant performance, which has the greatest impact on safe plant operation. The Reactor Oversight Process focuses on seven specific cornerstones: initiating events; mitigating systems; barrier integrity; emergency preparedness; public radiation safety; occupational radiation safety; and physical protection. The premise is that safety is maintained if the licensee performs acceptably in these cornerstones.

The agency is studying other performance indicators to see if it can establish an even better connection to risk. NRC is also seeking performance indicators that will help predict emergent problems, and thereby permit their avoidance, rather than to apply performance indicators that merely confirm existing problems.

According to the Chairman, overall, the oversight process has continued to meet its goals of providing more objective and understandable assessments of plant performance while focusing on aspects of the operation that are the most safety-significant. However, he acknowledged that improvements can be made in the way NRC assesses performance indicators and in the indicators themselves. There is also a need to improve the risk-assessment tools and techniques that are employed in the significance determination process. He also expressed that the accomplishments to date represent only a few baby steps, but NRC is committed to pursue risk-informing regulation initiatives over the long term. Risk-informed regulation will be a major area of focus for NRC over a number of years.

NRC's most significant initiative is still unfolding—to risk-inform the so-called “special treatment” requirements for nuclear plant systems, structures and components. Special treatment refers to the regulatory requirements in such areas as technical specifications, quality assurance, and environmental qualification requirements. The outcome of this effort is expected to be a fundamental change in the criteria used to determine when special treatment requirements should be imposed.

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RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- ▶ Audit of NRC Oversight of its Federally Funded Research and Development Center
- ▶ Review of NRC's Significance Determination Process

Investigations

- ▶ Review of NRC's Staff Approval of the Carolina Power and Light Request for Expansion of High-Level Radioactive Waste Storage

CHALLENGE 3

Acquisition and implementation of information resources.

Federal agencies' acquisition and implementation of information resources are crucial in (1) supporting critical mission-related operations, and (2) providing more effective and cost-efficient government services to the public. NRC, like other Federal agencies, continues to struggle in its efforts to obtain a good return on these investments. In recent years NRC has created massive databases of publicly-available information including the Agencywide Documents Access and Management System (ADAMS), the Electronic Information Exchange and the NRC website. ADAMS is the agency's electronic recordkeeping system that maintains the official records of the agency. The system continues to pose concerns for NRC. To remedy some of the deficiencies, NRC has planned updates for ADAMS, which will include upgrades to both agency workstations and server software, and includes full text search capability on the main library and a new web-based search software to access public documents.

The Office of Management and Budget (OMB) cited NRC in its annual report to Congress as one of a few agencies that had no violations of the Paperwork Reduction Act and had achieved burden reductions at a time when most agencies increased their burden to the public. In addition, NRC outlined its e-government and Government Paperwork Elimination Act strategy in a report to OMB last October. The strategy included the:

- ▶ implementation of all of the electronic transactions reported under the Government Paperwork Elimination Act,
- ▶ extending the digital signature capability,
- ▶ moving to electronic document management from creation to retirement,
- ▶ moving to a single, fully integrated human resources information management system, and
- ▶ leveraging the web for external and internal communications.

As a key component of its electronic government activities, NRC officials stated that the agency launched the Electronic Information Exchange production system and is developing an Electronic Information Exchange rule that will allow NRC licensees and others to electronically submit almost all documents and data via this exchange system as well as by CD-ROM, E-mail, and fax.

During fiscal year 2001, NRC made significant progress in redesigning NRC's public website with substantial guidance and assistance from a web redesign steering committee chartered by the

Executive Director for Operations and the Chief Information Officer.

While the agency has made strides in implementing information resources, additional improvements are needed.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Use of the Internet at NRC
- Review of NRC's Accountability and Control of Software
- Review of ADAMS
- Review of NRC's Protection of Social Security Numbers
- Independent Evaluation of NRC's Information Security Program as Required by the Government Information Security Reform Act for Fiscal Year 2002

Investigations

- Misuse of NRC Computer to Access Pornographic Material

CHALLENGE 4

Administration of all aspects of financial management.

NRC must be a prudent steward of its fiscal resources through sound financial management. Sound financial management includes the production of timely, useful, and reliable financial information to support agency management; an effective cost-accounting system; well-developed strategic

planning; and an integrated method for planning, budgeting, and assessing performance to better enable NRC to align programs with outcomes. Sound financial management also includes the manner in which an agency procures products and services. Procurements must be made in accordance with Federal guidance and with an aim to achieve the best value for the agency's dollars. Without effective management controls, the procurement process is susceptible to fraud, waste, and abuse.

NRC received an unqualified opinion on its financial statements for the eighth consecutive year during fiscal year 2001. Although NRC closed out four reportable conditions from the fiscal year 2000 financial statement audit, the agency had two new reportable conditions. One of the new reportable conditions, which also is a material weakness, is related to implementing the accounting policies for the agency's software capitalization policy. While progress has been made to tighten controls over financial management processes, further improvements are needed.

During the first quarter of fiscal year 2002, NRC implemented the human resources, payroll, and time and labor modules of the Human Resources Management System. However, NRC has yet to achieve its vision for a fully integrated, agency-wide financial management system.

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RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Audit of AID-Funded Activities
- Audit of Unbilled Costs by an NRC Contractor
- Review of Materials Licensee Fees
- Independent Auditors' Report and Principal Statements for the Years Ended September 30, 2001 and 2000
- Review of NRC's Implementation of the Federal Managers' Financial Integrity Act for Fiscal Year 2001
- Review of NRC's Simplified Acquisition Procedures
- Audit of NRC Oversight of Its Federally Funded Research and Development Center

Investigations

- NRC Employee Use of NRC Pager for Personal Business
- False Claims by NRC Materials Licensee
- Theft by NRC Contractor

CHALLENGE 5

Clear and balanced communication with external stakeholders.

To maintain public trust and confidence, NRC must be viewed as an independent, open, efficient, clear, and reliable regulator. To this end, the agency should provide its diverse group of external stakeholders (e.g., the Congress, general public, other Federal agencies, industry, and citizen groups) with clear,

accurate, and timely information about, and a meaningful role in, NRC's regulatory process. This is a challenging task because of the highly technical nature of NRC's operations, the sensitivity of its information, and the balance the agency must maintain to remain independent.

NRC has made improvements in the quality, clarity, and credibility of its communications with all stakeholders. The agency's initiatives include the development of: (1) communication plans to improve interactions with internal and external stakeholders on important projects and events; (2) a redesigned website to provide a richer variety of information; (3) formal training courses to provide NRC staff with the necessary skills; and (4) newsletters for highly visible topics.

Another important initiative that the agency has underway is to enhance public participation through the three types of NRC meetings open to the public. Category 1 meetings invite the public to observe the business portion of the meeting. It then gives the public an opportunity to communicate with the NRC after the business portion of the meeting, but before the meeting is adjourned. Category 2 and Category 3 meetings afford the public more opportunities to ask questions and provide comments at the meeting. NRC officials created a page on the external website which provides information such as explaining the three different categories, as well as feedback forms.

Public confidence is an NRC strategic goal. However, the agency has no baseline upon which to measure how well it delivers the value intended. The challenge for NRC is to afford all stakeholders, including the public, with appropriate and meaningful access to its

regulatory process. This access must be provided in a committed, stipulated, consistent, timely, and unambiguous manner that fosters confidence in the agency. At the same time, the agency is also faced with the responsibility of protecting sensitive security and safeguards information from unauthorized access.

No matter how much the NRC staff knows and how much it learns, there is still the possibility—in fact, the likelihood—that unanticipated events will occur. A recent example is the corrosion of the reactor vessel head at Davis-Besse. When these types of events arise, the sharing of pertinent information among NRC, licensees, and the public is indispensable in helping to determine what happened, whether other plants may be similarly vulnerable, and how to prevent such problems from arising in the future.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Audit of AID-Funded Activities
- Review of Materials Licensee Fees
- Review of ADAMS
- Review of NRC's Significance Determination Process

Investigations

- Improper Release of Proprietary Financial Information
- Review of NRC's Staff Approval of the Carolina Power and Light Request for Expansion of High-Level Radioactive Waste Storage

CHALLENGE 6

Intra-agency communication (up, down, and across organizational lines).

Internal communication is a fundamental and necessary aspect of conducting agency business. NRC needs effective internal communication channels and methods to support its critical health and safety mission. Information is the key resource that links managers with staff, the organization, and other internal stakeholders—enabling people to do their jobs and to work cooperatively and efficiently in a coordinated manner. However, unless the information is organized in a useful manner, it is merely data and not meaningful.

NRC has undertaken actions to improve its internal communications over the past year. Actions taken include (1) the continuing use of the electronic “EDO Updates,” a new type of communication between the Executive Director for Operations and the entire staff; (2) a new link on the internal Web, which includes step-by-step instructions for how to create communication plans and instructions on conducting public meetings, and (3) a communications bulletin for managers and supervisors that is issued twice a month to help managers communicate better both within and between departments.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Use of the Internet at NRC
- Review of the Materials Licensee Fees
- Review of ADAMS

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- Review of NRC's Significance Determination Process

Investigations

- Improper Release of Proprietary Financial Information

CHALLENGE 7

Integration of regulatory processes in a changing external environment.

NRC faces a number of challenges related to the changing regulatory and business environment. For example, an NRC working group identified and assessed the possible effects of nuclear industry consolidation on NRC's oversight functions and responsibilities. The group concluded that the existing NRC organizational structure, policies, guidance, and regulations are adequate at this time. However, staff continues to monitor experience and feedback from the current oversight processes and will consider further study should significant changes occur in the industry. NRC also faces such challenges in the following areas.

High-level Waste

Several Federal agencies have a role in the disposal of spent nuclear fuel and other high-level radioactive waste under the Nuclear Waste Policy Act of 1982. NRC expects to receive an application in the next few years from the Department of Energy for a permit to construct a permanent repository for high-level waste at Yucca Mountain. NRC anticipates that if an application to build the repository is submitted, the administrative proceeding will be massive—perhaps as vast and complex as any the Federal Government has ever seen. The significant challenge

for NRC is ensuring that all parties and decision makers have timely access to filings and exhibits.

Reactor License Renewal

Many electric generating companies have sought, and others are expected to follow suit, to renew the licenses of their facilities rather than decommissioning the plants. NRC staff has met or bettered the target schedules for the four license renewal reviews completed to date while maintaining the necessary technical rigor. In addition, renewal applications for eight plants are currently under review and four more applications are expected before the end of the current fiscal year. This workload will continue to challenge the agency to complete the review in a timely manner.

Applications to Increase Power Output

NRC expects to receive a number of applications to increase approved reactor power output in the near future. As a result, NRC is looking at ways to improve the efficiency of the process, while maintaining the high technical quality of its reviews. NRC has been significantly challenged over the last few years with the increasing number of new requests and with many licensees requesting larger power increases.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Audit of AID-Funded Activities
- Audit of NRC Oversight of Its Federally Funded Research and Development Center
- Review of NRC's Significance Determination Process

CHALLENGE 8

Maintenance of a highly competent staff (i.e., human capital management).

NRC needs a dynamic, diverse workforce with the appropriate knowledge, skills, and abilities to achieve its public health and safety mission. Human capital management—a process for identifying the human capital required to meet organizational goals and developing the strategies to meet these requirements—provides managers with a framework for making sound staffing decisions. The Chairman recognizes this challenge and stated that “We need to focus attention on assuring the appropriate skill mix for the NRC.”

In fiscal year 2001, the OIG released a report on NRC’s workforce planning. NRC is making a concerted effort to strengthen the agency’s approach to workforce planning; however, the agency lacked a comprehensive, agencywide workforce plan. NRC has made an effort to respond to this challenge over the past year. NRC is undertaking a significant effort to develop administrative processes and to standardize its strategic workforce planning initiative. Actions include developing and implementing a Strategic Workforce Planning Communication Plan and integrating strategic workforce planning into the Planning, Budgeting, and Performance Management process for the fiscal year 2004 budget. Strategic workforce planning needs will be identified by the offices and strategies to address these needs will be developed. Also by fiscal year 2004, NRC plans to have a fully integrated process and an automated skills database to support human capital management throughout the agency.

The agency recognizes that the nuclear industry is rapidly changing. There are new technologies and new ways for the staff to learn new skills to do their day-to-day business. NRC, like many other Federal agencies, is facing the likelihood of increased retirements and the resulting loss of important knowledge and expertise. The agency needs to meet this challenge in order to address all other management challenges. Continued efforts are needed to ensure that the agency’s workforce planning efforts become institutionalized and continue to get the high level attention they have received over the past year.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- ▶ Review of NRC’s Use of Credit Hours

Investigations

- ▶ Staff Bias in Connection with NRC Workforce Planning Contract

CHALLENGE 9

Protection of information.

This is a new standalone management challenge for the agency. After September 11, 2001, concerns that information in NRC databases could be used for malicious purposes, caused NRC to take several steps. NRC denied access to certain documents normally publicly available and NRC changed its interactions with the public to ensure that sensitive information was not being disclosed. These steps were taken because of the view that information contained in the databases may be of interest to those with malicious intentions and potentially significant harm could result from inappropriate disclosure.

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Actions taken included adding additional barriers and warning messages to the ADAMS software to prevent the release of sensitive documents or packages. In addition to protecting information in ADAMS, a sensitivity warning message is shown at the bottom of every page on the agency's internal Web site to serve as a reminder that sensitive information should not be made publicly available. This message is consistent with the current agency-approved guidance regarding the release of information to the public, and is especially important given recent developments, which have heightened NRC's safeguards and security awareness.

NRC has made efforts to strengthen information protection. Nevertheless, recent audits continue to show weaknesses that place critical operations at risk of fraud, misuse, and disruption. In October 2002, OIG released a report on NRC's handling and marking of sensitive unclassified information and found that the current guidance does not provide adequate controls to protect information from inadvertent public disclosure. Specifically, protective measures were left to the discretion of the document originator.

Additionally, in the past two years, OIG has evaluated the agency's information security program and practices. OIG assessed compliance with requirements and related information security policies, procedures, standards, and guidelines. During the fiscal year 2002 Government Information Security Reform Act evaluation, OIG found that NRC has made substantial progress in improving its information security program. Despite this progress, the security program is not well integrated and is not consistently implemented across the agency. NRC officials have

not clearly defined the responsibility and accountability for all aspects of the information security program within its organizational structure.

A recent audit disclosed a lack of full adherence to agency policy covering the use of social security numbers. In addition, the agency's practices of its Freedom of Information Act and Privacy Act responsibilities have been inconsistent, resulting in both the inadvertent release of information and inadequate document searches.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- ▶ Review of NRC's Protection of Social Security Numbers
- ▶ Independent Evaluation of NRC's Security Program as Required by the Government Information Security Reform Act for Fiscal Year 2002
- ▶ Review of NRC's Handling and Marking of Sensitive Unclassified Information

Investigations

- ▶ Inappropriate Release of Proprietary Financial Information
- ▶ Staff Bias in Connection with NRC Workforce Planning Contract

CONCLUSION

While nine distinctive management challenges have been identified, the challenges are also interdependent. NRC needs to continue the important activities it has underway to address these most serious management challenges. To emphasize the importance I place on these concerns for the agency, I have prepared and distributed a pocket sized card detailing these major management challenges confronting the NRC to all employees.

cc: Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
William Travers, OEDO
John Craig, OEDO

APPENDIX A: MANAGEMENT'S ACTIONS

MANAGEMENT'S ACTIONS TO ADDRESS MAJOR CHALLENGES

1. Protection of nuclear material and facilities used for civilian purposes

In a memorandum dated December 17, 2001, the Office of Inspector General (OIG) added this new management challenge in light of the terrorist attacks of September 11, 2001. The NRC took immediate action as a result of the terrorist attacks, including issuing a notice to advise our reactor and fuel cycle facility licensees to go to the highest level of security and maintaining enhanced 24 hours per day operation of the Emergency Operations Center. The agency also initiated a thorough review of its safeguards and physical security programs.

The NRC reviewed the Strategic Plan to determine if its goals, strategies, and measures adequately address the protection of nuclear materials and facilities. The NRC also developed actions and milestones to meet this challenge and included them in the FY 2004 Budget Estimates and Performance Plan.

For specific actions the NRC took in FY 2002 to address this challenge, please refer to the homeland security discussion in Chapter II of this report. Among those actions was the identification of events involving the loss or theft of licensed material where the form and quantity of material warranted increased attention with respect to the potential for its use by a terrorist. These events result in an increased level of effort by the NRC, licensees, and law enforcement agencies to recover the material. These events have also provided insights for developing regulatory changes to improve the security and control of licensed material.

2. Development and implementation of an appropriate risk-informed and performance-based regulatory oversight approach

For many years, the NRC has developed and adapted methods for undertaking probabilistic risk assessments and performance assessments to understand better the risks from licensed activities. The NRC supported the development of the calculation tools and experimental results to provide the basis for risk-informed regulation. Risk-informed regulation is an approach to decisionmaking that uses risk analysis along with engineering studies to focus regulatory and licensee attention on design and operational issues commensurate with the risk they pose to public health and safety. Incorporating risk analysis into regulatory decisions improves the regulatory process by focusing staff and licensee activities on the areas of highest risk, reducing the burden on licensees, and increasing the efficiency and effectiveness of agency resources.

The agency made the continued development and implementation of risk-informed and performance-based practices a key strategy to accomplishing its strategic and performance goals in the FY 2000-2005 Strategic Plan. The Commission has developed a risk-informed regulatory implementation plan to further its goal of applying risk techniques broadly to its regulatory processes. The plan is of such importance that the NRC has included milestones for further implementing the risk-informed regulatory implementation plan as a performance measure in working towards its goal to make NRC activities and decisions more effective, efficient, and realistic. During FY 2002, the NRC has taken actions in each arena to meet this challenge.

Nuclear Reactor Safety Arena: The NRC assessed stakeholder feedback and reviewed annual assessments during FY 2002 to determine the success of implementing its revised Reactor Oversight Process (ROP). The assessments show that the revised ROP has resulted in a more objective, risk-informed, and predictable regulatory process. The risk-informed ROP has focused NRC and licensee resources on aspects of plant performance with the greatest impact on safe plant operation.

During FY 2002, the Office of Nuclear Regulatory Research recommended the use of risk-inform requirements for emergency core cooling systems for reactors. A research information letter provides the technical basis for considering revisions to the emergency core cooling system acceptance criteria and certain features of the evaluation model requirements. The proposed changes would give licensees flexibility regarding power uprates.

In addition, the NRC drafted a proposed rule on special treatment requirements and obtained stakeholder feedback. Special treatment refers to current requirements imposed on structures, systems, and components that exceed industry-established requirements for equipment classified as commercial grade. These extra requirements provide additional confidence that the equipment can meet its functional requirements under design basis conditions.

Nuclear Materials Safety Arena: The Office of Nuclear Materials Safety and Safeguards has several risk-informing initiatives designed to identify and assess risks associated with a diversity of regulated activities systematically. These risk insights will improve the efficiency and effectiveness of NRC's licensing and inspection pro-

grams. In FY 2002, the NRC completed case studies that evaluated the use of risk insights for regulatory activities in the nuclear materials and waste safety arenas, and completed a report that integrated the final results of these case studies.

In FY 2002, the NRC implemented the revised Manual Chapter (MC) 2604, Licensee Performance Review. The revision makes the fuel cycle licensee performance review process more timely and risk-informed, and will allow the agency to focus more quickly on declining performance trends in safety-significant activities at licensed facilities.

Also, the NRC revised and issued for public comment the MC 2600, Fuel Cycle Facility Operational Safety and Safeguards Inspection Program. The revised program will incorporate the operating experience gained during the transition from a compliance-based to a more risk-informed program. The revisions better define the program management oversight process. This program is scheduled to begin in FY 2003.

In FY 2002, the NRC published NUREG-1520, Standard Review Plan for the Review of an Application for a Fuel Cycle Facility. This document provides guidance to staff to ensure the quality and uniformity of the reviews required by new requirements in the revised 10 CFR Part 70. The revised Part 70 increases the use of risk information for fuel cycle facilities.

In FY 2002, the NRC published revised 10 CFR Part 35, Medical Use of Byproduct Material. This rule provides a more risk-informed, performance-based approach to the regulation of medical licensees. Also in FY 2002, the NRC completed a report on the results of the medical pilot inspection program.

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This program employed a risk-informed, performance-based approach to conducting inspection and enforcement efforts.

In FY 2002, NRC issued a Temporary Instruction (TI) pertaining to the materials inspection program. This TI allows inspection procedures to be revised, beginning in October 2002, to use risk studies and operational data in establishing inspection priorities. It also provides additional methods for improving the materials inspection program.

The agency also relied on risk insights from NUREG/CR-6642, Risk Analysis and Evaluation of Regulatory Options for Nuclear Byproduct Material Systems, in re-evaluating inspection priorities.

Nuclear Waste Safety Arena: In resolving the key technical issues associated with the potential High-Level Waste (HLW) repository, the Office of Nuclear Materials Safety and Safeguards employs a regulatory approach that considers risk insights from a systems approach based upon performance assessment. The agency ensures that reviews are graded, based on their significance to repository performance. Several examples of NRC efforts to incorporate risk insights into its reviews are included as follows:

In FY 2002, the NRC published 10 CFR Part 63, the site-specific, performance-based regulation applicable to the proposed repository at Yucca Mountain, Nevada.

In July 2002, NRC issued the Integrated Issue Resolution Status Report (IRSR) for the proposed geologic repository at Yucca Mountain. This report identifies the status of NRC and DOE preclicensing interactions on key technical issues important to repository performance.

The NRC provided preliminary site sufficiency comments to the DOE proposal for the HLW repository at Yucca Mountain. The staff used the key technical issue resolution status reports to risk-inform its sufficiency review.

The NRC also issued draft Revision 2 of the Yucca Mountain Review Plan (YMRP) for public comment and held a number of public meetings in Nevada to discuss the document. The YMRP describes how the staff will review DOE's license application against the requirements in 10 CFR Part 63. To the extent practical, the YMRP is risk-informed and performance-based.

In FY 2002, the NRC initiated a Risk Insights Initiative that will assist the staff in identifying the most important information related to the performance of the proposed Yucca Mountain repository and to the resolution of licensing issues. NRC staff has identified nine key technical issues that are most significant to repository performance, one of which is thermal effects on flow of water. The NRC and the DOE have developed formal agreements on the information that DOE needs to furnish in order to address each of these issues and related subissues. The Risk Insights Initiative was presented by NRC staff to the Advisory Committee on Nuclear Waste, and the initiatives will continue in FY 2003. The initiative will help focus regulatory activities and support risk-informed decisionmaking during the preclicensing and licensing phases of the repository program.

In addition, risk-informing initiatives were undertaken in the decommissioning program. For example: During FY 2002, staff in the nuclear waste safety arena continued progress towards

completing of a multi-year effort to update, consolidate, and make more risk-informed and performance-based the current decommissioning guidance in NUREG-1757, Consolidated NMSS Decommissioning Guidance, by issuing Volume 1 for public comment.

The NRC evaluated the decommissioning inspection program and made improvements to better focus resources on sites where significant decommissioning activities are occurring. Also in FY 2002, the NRC completed case studies that evaluated the use of risk insights for regulatory activities in the nuclear materials and waste safety arenas. The staff completed a report integrating—the final results of these case studies.

3. Acquisition and implementation of information resources

The discussion of the President's Management Agenda for Expanded Electronic Government deals extensively with this issue. Please see that section for a description of NRC actions that addressed this management challenge in FY 2002.

4. Administration of all aspects of financial management

The discussion of the President's Management Agenda for Improved Financial Management deals extensively with this issue. Please see that section for a description of NRC actions that addressed this management challenge in FY 2002.

5. Clear and balanced communication with external stakeholders

Building and maintaining public trust and confidence is an important NRC goal and appears among the performance goals for each arena. An important part of

establishing public confidence in the NRC is providing stakeholders with clear and accurate information about, and a meaningful role in, the agency's regulatory programs. The following actions were undertaken in FY 2002 by NRC to address this challenge.

Nuclear Reactors Safety Arena: The NRC developed and issued an array of plans governing communications on topics such as the issuance of security orders to operating power plants, extended power uprates, and the reactor vessel head degradation at Davis-Besse.

The License Renewal Program conducted 22 public meetings on environmental issues associated with the continued operation of specific nuclear power plants. These meetings afforded the NRC the opportunity to solicit stakeholder viewpoints and provided stakeholders the opportunity for meaningful exchange of information on the potential for environmental effects of continued operation. The NRC held these meetings in the vicinity of those affected by its actions.

The NRC held 22 public meetings on issues surrounding the reactor vessel head degradation at the Davis-Besse nuclear power plant and the NRC's response and evaluation. These meetings informed external stakeholders about the status of the NRC's oversight activities and gave citizens the opportunity to comment and ask questions. Nearly half of these meetings took place in the locality of the Davis-Besse Plant.

The NRC held public meetings in the vicinity of each nuclear power plant during FY 2002 to discuss the NRC's annual assessment of the plant's safety performance. These meetings provided external stakeholders with information on each plant's safety performance and the NRC's role in ensuring safe operation.

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Nuclear Materials Safety Arena: The NRC implemented an array of integrated plans governing communications regarding: Event Response and Assessment, Mixed-Oxide Fuel (MOX) Fuel Fabrication Facility Licensing, Materials Inspections, Part 35--Medical Uses, Enrichment Technology, and Uranium Recovery Issues.

The NRC coordinated with DOE on several projects, including the MOX Facility, the potential for NRC external regulation of DOE non-defense laboratories, and on uranium enrichment issues.

The Fuel Facilities Licensing and Inspection Program conducted 24 public meetings on significant regulatory issues. These meetings gave the NRC the opportunity to solicit stakeholder viewpoints and provided stakeholders with the opportunity to exchange information on a variety of issues, including the MOX licensing initiative and the integrated safety analysis required by the revised Part 70. Most of these meetings took place in the vicinity of those affected.

The NRC held a series of public meetings and workshops with medical community stakeholders to ensure their understanding of the changes associated with 10 CFR Part 35 workshops throughout the country, conducted in English and Spanish, helped to develop licensing and inspection guidance. Medical stakeholders played a key role and had substantive input to the process.

The NRC also worked closely with the States to ensure a close dialogue in the regulation of radioactive material. The NRC participated in the Organization of Agreement States meeting in October 2001. The NRC also sent representatives to

the Conference of Radiation Control Program Directors meeting in May 2002.

In June 2002, NRC staff participated in the 6th International Conference on Probabilistic Safety Assessment and Management. NRC staff wrote or co-wrote eleven papers presented at the conference. The papers discussed NRC's program for adding risk information to its nuclear materials and nuclear waste safety arena activities.

The Risk Task Group (RTG) of the Office of Nuclear Materials and Safeguards conducted a series of public meetings and workshops to solicit public comment on case studies of regulatory applications amenable to expanded use of risk assessment. At an October 25, 2001, public meeting, RTG staff reported on the integration of all the case studies, the screening criteria, draft safety goals, and further plans for using risk-informing the regulatory process for the safe use of nuclear materials.

Nuclear Waste Safety Arena: NRC staff met with representatives of the State of Nevada and several counties, including elected officials and members of the public, to address health and safety issues associated with a possible licensing decision on a HLW repository, and NRC's role in licensing. NRC staff also held three public meetings to discuss and receive comments on the draft YMRP, a key licensing document used by the staff.

The NRC held public outreach meetings for a proposed rulemaking on Part 71, Packaging and Transportation of Radioactive Materials. The NRC also held public meetings at the Duke Energy, Pilgrim, Oyster Creek, and Maine Yankee sites. At

these meetings, staff responded to citizens' concerns about storage and transportation issues.

The NRC held public meetings with interested stakeholders at sites and facilities that are undergoing decommissioning. The facilities included West Valley, New York; Hematite, near St. Louis, Missouri; and Maine Yankee, in Wiscasset, Maine. The NRC also developed and implemented public communications plans for Site Decommissioning Management Plan (SDMP) sites to enhance outreach activities with stakeholders. A workshop for licensees and others was held to discuss facilitating public involvement at restricted use sites.

The NRC developed the Spent Fuel Transportation Communication Plan, which provides a focused approach for the public outreach and communication efforts related to spent fuel transportation.

6. Intra-agency communication (up, down, and across organizational lines)

Nuclear Reactor Safety Arena: During FY 2002, the offices involved in the nuclear reactor arena met periodically with intra-agency stakeholders to enhance communication and support functions. Offices in the arena also identified internal stakeholders as a targeted audience in their communication plans.

Through frequent communications at all managerial levels including monthly management meetings, the Office of Nuclear Reactor Regulation and the Office of Nuclear Regulatory Research have achieved a balanced perspective representing a more senior management point of view on their interactions. This has reduced informal and unstructured communication between the staff and improved work processes and products.

The NRC continued to improve interface between its offices during FY 2002 through periodic meetings to enhance integration and cooperation.

Communication between headquarters offices and regional offices improved as a result of frequent conference calls at both the staff and senior management levels, trips, weekly informational e-mail, and the effective use of internal web sites. During FY 2002, the offices also encouraged rotating staff assignments throughout the organization in order to encourage share and increase team-building.

Nuclear Materials Safety Arena: The arena has expanded the use of meetings in which Division Director from Headquarters meet with their regional counterparts to improve communication and reach agreement on solutions to policy and technical issues. The agency held two such meetings in FY 2002. The Office of Nuclear Material Safety and Safeguards (NMSS) continued its increased focus on regularly scheduled and effective staff meetings at all levels throughout the organization to ensure open lines of communications. The NMSS also encouraged and supported rotating staff assignments throughout the organization, and team work group assignments, in order to share insights across arenas and to promote team-building and arena-based solutions to issues.

Managers of NMSS and the Office of State and Tribal Programs held periodic counterpart meetings to ensure communication on items of mutual interest.

To facilitate effective communication and enhance integration and cooperation in areas of common concern, NMSS and the Office of Nuclear Security and Incident Response have designated points of contact for each area and conduct routine meetings to share information.

APPENDIX A: MANAGEMENT'S ACTIONS

Nuclear Waste Safety Arena: NMSS continued its increased focus on regularly scheduled and effective staff meetings at all levels throughout the organization to ensure open lines of communication.

The use of management boards has improved interoffice communication on important issues such as high-level waste management and decommissioning. These Boards meet biweekly to discuss status reports regarding action items and to provide additional direction to these programs, particularly in the area of policy issues. In FY 2002, at the annual meeting of counterparts, decommissioning staff from headquarters and regions discussed and resolved significant policy and technical issues associated with the decommissioning program.

7. Integration of regulatory processes in a changing external environment.

The NRC uses its planning, budgeting, and performance measurement process to integrate its regulatory processes and ensure that it is able to respond to changes in its environment. Each year the Program Review Committee holds planning sessions to ensure that the Commission regulatory processes are integrated and resources allocated where needed. These plans are approved by the Commission during the budget process. In addition, the Executive Director for Operations holds meetings to ensure integration across the arenas.

Nuclear Reactor Safety Arena: One of the most important changes facing the nuclear reactor safety arena is the consolidation and restructuring of nuclear power assets. The NRC conducted a study to assess the safety implications of consolidation within the

industry. The agency published the study in FY 2001 to allow the public a chance to comment on the NRC's findings and then held a public workshop to address comments on the paper. Staff presented the final paper to the Commission in FY 2002.

Nuclear Materials Safety Arena: Quarterly meetings of the Probabilistic Risk Assessment Steering Committee ensure that risk-informed activities are integrated across the agency.

NRC managers' participation on the Research Effectiveness Review Board ensures the effectiveness of the agency's research program in meeting agency-wide needs.

A Risk Steering Committee provides guidance and sets expectations for the NMSS Risk Task Group for implementing risk-informed initiatives in the nuclear materials and waste safety arenas. The committee comprises of managers and staff from the NMSS, NRR, and Nuclear Regulatory Research with expertise in risk-informing initiatives. These experts also provide peer review of risk-informed products.

The Rulemaking Coordinating Committee (RCC), formed in 1998 ensures that the NRC rulemaking process remains consistent throughout the NRC. The RCC consists of managers from the NMSS, NRR, Office of Administration, and Office of the General Counsel who routinely meet to discuss rulemaking-related issues. The primary focus of the RCC is to ensure consistency in methods used to develop and promulgate rules and to facilitate initiatives for improving all aspects of the rulemaking process. In a recent initiative, the RCC was the established an interoffice task force to review the current

rulemaking process and identify areas with potential for process improvements and/or enhancements. The task force recently briefed the RCC on the preliminary findings of the review.

The NRC's Response to Terrorist Attacks (RTA) Task Force, formed after September 11, 2001, worked to ensure an integrated agency response to the security issues raised by the events of terrorist attacks. The RTA Task Force prepared the "Scoping Paper for Comprehensive Review of the NRC's Safeguards and Security Programs in Light of the Terrorists Attacks on September 11, 2001." This paper outlined a proposed course of action and schedule for conducting a comprehensive review of the NRC's safeguards and physical security programs, and identified preliminary policy issues for consideration. With the establishment of the NRC's Office of Nuclear Security and Incident Response (NSIR), the Task Force was disbanded and its functions assumed by NSIR.

Nuclear Waste Safety Arena: The Offices of the General Counsel, Secretary to the Commission, Chief Information Officer, Atomic Safety Licensing Board Panel, and Nuclear Materials Safety and Safeguards continued to work together to prepare for receipt of the HLW repository license application and hearing. This effort involves putting the systems and process in place to fulfill the 3-year mandate.

The NMSS and the NRR have worked in partnership to draft a plan for transfer of project management responsibility for regulatory oversight of decommissioning commercial nuclear reactor plants. This plan would change the point at which oversight transfers from the NRR to the NMSS from that set

forth in a March 15, 1995, MOU between the two offices. The planned changes will improve efficiency and effectiveness by placing responsibility for power reactor decommissioning within the NMSS, which conducts a large-scale decommissioning program for numerous sites. The NRR will continue to provide technical support as requested by the NMSS.

Quarterly meetings of the Probabilistic Risk Assessment Steering Committee ensure that risk-informed activities are integrated across the agency.

NRC managers' participation on the Research Effectiveness Review Board ensures the effectiveness of the agency's research program in meeting agency-wide needs.

8. Maintenance of a highly competent staff (i.e., human capital management)

The discussion of the President's Management Agenda for Strategic Management of Human Capital deals extensively with this issue. Please see that section for a description of NRC actions that addressed this management challenge in FY 2002.

9. Protection of information

In a memorandum dated November 18, 2002, the OIG added this new management challenge. The NRC is reviewing of the Strategic Plan to determine if our goals, strategies, and measures address protection of information. The NRC is currently developing actions and milestones to meet this challenge and will include them in the FY 2005 Budget Estimates and Performance Plan.